

NATIONAL RESEARCH COUNCIL  
ASSEMBLY OF ENGINEERING

2101 Constitution Avenue Washington, D. C. 20418

DIESEL IMPACTS STUDY COMMITTEE

202/389-6811

202/389-6974

December 7, 1981

Dr. Frank Press, Chairman  
National Research Council  
2101 Constitution Avenue, N.W.  
Washington, D.C. 20418

Dear Dr. Press:

It is my pleasure to submit to you the complete final report, Diesel Cars: Benefits, Risks, and Public Policy, prepared by the Diesel Impacts Study Committee.

When the Committee began its study in the summer of 1979, the nation was in the grip of yet another shortage of motor fuel, brought on by the turbulent revolution in Iran, with concomitant increases in oil prices. Once again, as in the 1973-1974 period, when we were cut off from petroleum produced in several Middle East countries, the conservation of oil was a central theme in government and throughout society. As a way of saving fluid fuel, some Americans were turning to diesel-powered passenger cars. At the same time that diesel cars were gaining acceptance, questions were being raised about the possibility that diesel engine emissions could damage human health and reduce air quality. Though the US Environmental Protection Agency already had imposed certain limits on the various pollutants emitted by diesel vehicles, the prospective growth in the number of diesel cars and the questions this presented led the White House Office of Science and Technology Policy to ask the National Research Council to assess the situation.

The study was undertaken to assist the executive and legislative branches of the government, as well as the American people in general, to better understand the benefits and costs of the wider use of diesel cars and small trucks. It was clear from the start that the Committee's purpose was to examine the scientific, technical, and economic factors and to provide an analytic base that could be of considerable value to those who must formulate government policy about diesels. Beyond this, the Committee's report would help the public to perceive the benefits and risks of "dieselization" of America's roads.

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Our first concern, and that of the sponsoring agencies, was to assess the evidence on the potential health hazards of diesel emissions. This was done in the form of an Interim Report by the Health Panel of the Committee last year.

On the broader question of the social issues involved in "dieselization," we found that very little was known about the overall costs and benefits of government regulation to protect health, safety, and environmental amenities. Our job involved putting societal and individual advantages and disadvantages into perspective, comparing the hazards and the alternatives to determine where and on whom the greatest risks would fall. In this way we could bring more light to the decision-making process for regulating diesel engine emissions. After all, there is no scientific formula for making regulatory decisions. There is no satisfactory way to calculate all the costs and benefits of regulatory alternatives in dollars or any other terms that can be mathematically added, subtracted, or compared.

There is no single, objective, definitive policy that the Committee agreed was tenable for all time so long as the answers to the questions about diesel emissions and their control remain imprecise. Notwithstanding all the uncertainties, the Committee has provided some significant assistance to regulators and legislators. The report offers some findings, however tentative, about whether diesel emissions are any more critical to health than known carcinogens in cigarette smoke, say, or roofing tar. It emphasizes that present knowledge is far from complete and points to ways that the knowledge base can be strengthened by additional research. It suggests when the regulatory agency ought to make checks of the research in order to apply the knowledge to setting appropriate standards for diesel emissions.

Because of the diverse backgrounds and viewpoints represented on the Committee, as well as the complexity of the subject, effective communication and consensus building were not always easy. And because the members are not equally expert in all aspects of the problem, there may be no member of the Committee who agrees with every detail of this report. But all the members agree with all of the essential conclusions of the report.

As chairman, I want to express my appreciation to the Committee members for their contributions to the study and to the panels and consultants who prepared so many documents and summaries to advance this endeavor. Finally, the Committee owes a great debt to Irwin Goodwin of the staff of the National Research Council for holding us together in the final months, seeking consensus, and editing and producing this report. He brought to our work the requisite combination of enthusiasm, patience, cheerfulness, and, most of all, the important quality of caring.

Sincerely,

  
Henry S. Rowen